

Claims

1. Workpiece with a substrate of ceramic, metal or polymer, the substrate having a surface which is conditioned to form a stable connection with a polymer and which is provided with a silica layer and, on top of this, with a silane coupling agent,
- 5 characterized in that
- 10 - the substrate, the silica layer and the silane coupling agent are sterile, and
- on top of the silane coupling agent, a preserving protective layer which is sterile and/or can be sterilized after polymerization is provided as the activatable first component of a multi-component adhesive which at the
- 15 time of use is formed by addition of at least one further adhesive component.
2. Workpiece according to Claim 1, characterized in that the sterile and/or sterilizable preserving protective layer is made of polymethyl methacrylate.
- 20 3. Workpiece according to Claim 1, characterized in that the sterile and/or sterilizable preserving protective layer is made of BisGMA.
4. Workpiece according to Claim 1, characterized in that the preserving
- 25 protective layer is made of epoxy resin.
5. Workpiece according to Claim 1, characterized in that the preserving protective layer is made of phenolic resin.
- 30 6. Workpiece according to one of the preceding claims, characterized in that the sterile and/or sterilizable preserving protective layer has a thickness of $< 100 \mu\text{m}$.
7. Workpiece according to one of the preceding claims, characterized in that
- 35 the substrate has a surface conditioned to form a stable connection to a polymeric adhesive.

8. Workpiece according to one of the preceding claims, characterized in that it is used in moist warm media.
- 5 9. Workpiece according to one of the preceding claims, characterized in that it is used as an implant or prosthesis or as a component of an implant or prosthesis in medicine.
- 10 10. Method for producing a workpiece according to one of the preceding claims, in which the surface of the substrate is cleaned, a silica layer is then applied using a high-vacuum evaporation unit and is then wetted with a silane coupling agent,
- 15 characterized in that
- after the substrate surface has been cleaned, carboxyl groups are generated thereon by means of a low-pressure plasma process, and
- 20 in order to preserve the surface which has been treated in this way, with the silica layer and the silane coupling agent, until further processing, a sterile and/or sterilizable preserving protective layer is applied as the activatable first component of a multi-component adhesive which at the time of use is formed by addition of at least one further adhesive component.
- 25 11. Method for producing a workpiece according to Claim 10, characterized in that the vapour-deposition of the silica layer is effected in a reproducible manner using a shutter system.
- 30 12. Method for making use of a workpiece according to one of the preceding claims,
- characterized in that
- 35 after sterile intermediate storage, the workpiece is first provided on its conditioned surface with a monomeric adhesive component in order to activate the protective layer, and a polymeric adhesive component is then

applied on top of this, these two adhesive components forming a multi-component adhesive together with the protective layer.